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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,550	02/27/2002	Kazuhito Rokutan	ASAM.0051	5577
38327	7590	05/18/2004	EXAMINER	
REED SMITH LLP 3110 FAIRVIEW PARK DRIVE, SUITE 1400 FALLS CHURCH, VA 22042			LY, CHEYNE D	
			ART UNIT	PAPER NUMBER
			1631	

DATE MAILED: 05/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/083,550

Applicant(s)

ROKUTAN ET AL.

Examiner

Cheyne D Ly

Art Unit

1631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 2-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-10 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date February 27, 2002.
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date April 19, 2004.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's election of species: an oligonucleotide array that does not specify whether multiple subblocks are required and stress tolerance or survival related genes, filed February 11, 2004, has been acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Applicant's withdrawal of claim 5 has been acknowledged.
3. The species election requirement directed to Species (B), mailed January 16, 2004, has been withdrawn.
4. The species election requirement directed to Species (A), mailed January 16, 2004, has been maintained.
5. Claims 2-4 and 6-10 have been withdrawn due to said claims being directed oligonucleotide arrays requiring multiple subblock regions which have been non-elected.
6. Claim 1, an oligonucleotide array that does not specify whether multiple subblocks are required, is examined on the merits.

OBJECTIONS

7. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code (page 18, lines 6 and 8, page 22, lines 22 and 25, and 41, line 6). Applicant(s) is/are required to delete the embedded hyperlink and/or other form of browser-executable code, or inactivate the hyperlink. See MPEP § 608.01.

CLAIM REJECTIONS - 35 U.S.C. § 112, SECOND PARAGRAPH

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 1631

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Specific to line 4, the phrase “chains to the said genes” which refers to the “stress related genes” of line 3, said phrase is vague and indefinite because it is unclear as to whether the complementary sequence is chained to the nucleic acid sequence (gene), mRNA (gene), or protein (gene) related to stress. Clarification of the metes and bounds is required.

4. Specific to line 4, the term “chain” causes the claim to be vague and indefinite because it is unclear as to whether the term “chain” denotes the concatenation of complementary sequences or the hybridization of complementary sequences. Clarification of the metes and bounds is required.

5. Specific to the limitation "oligo-nucleotides" in line 4. There is insufficient antecedent basis for this limitation in the claim.

6. Specific to lines 5-6, the phrase “the fixation region on the support substrate is divided into the said classification” which refers to “oligo-nucleotides are classified according to their gene function” causes claim 1 to be vague and indefinite. Claim 1 is unclear to whether “divided” refers to a mathematical division function or a means for organizing the fixation region. Clarification of the metes and bounds is required.

CLAIM REJECTIONS - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1631

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watson et al. (1999) taken with Schena et al. (1996).

10. Watson et al. discloses an oligonucleotide array directed to searching genes encoding differential responses to stress (stress related genes) (page 534, column 2, An Example: Searching for Genes Encoding Differential Responsiveness to Stress §), as in instant claim 1, line 3.

11. The array comprises a glass slide treated to bind single nucleotides (A, T, G, or C) (different base sequences) at known and separate positions on said slide (pages 536-537, II. Oligonucleotide Arrays or Gene Chips § and Figure 2) as in instant claim 1, lines 1-3.

12. However, Watson et al. does not disclose the limitation of oligonucleotides being classified according to their gene functions and that the fixation region on the support substrate is divided into the said classification.

Art Unit: 1631

13. Watson et al. cites Schena et al. 1996 as having disclosed EST/cDNA arrays comprising sequences which are complementary to mRNAs.

14. Schena et al. discloses the classification of array elements by gene functions and the fixation of the arrays are according to said gene functions as indicated by the row and column values (Figure 2), as in instant claim 1, lines 4-6.

15. An artisan of ordinary skill in the art at the time of the instant invention would have been motivated by the disclosure of Watson et al. via the citation of Schena et al. to utilize the classification concept of Schena et al. with the oligonucleotide array of Watson et al. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to use oligonucleotide array with the array elements by gene functions as taught by Watson et al. and Schena et al.

CONCLUSION

16. NO CLAIM IS ALLOWED.

17. Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993) (see 37 CFR § 1.6(d)). The CM1 Fax Center number is (703) 872-9306.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Dune Ly, whose telephone number is (571) 272-0716. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

Art Unit: 1631

19. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, Ph.D., can be reached on (571) 272-0722.
20. Any inquiry of a general nature or relating to the status of this application should be directed to Legal Instruments Examiner, Tina Plunkett, whose telephone number is (571) 272-0549.

C. Dune Ly
5/12/04

Ardin H. Marschel 5/14/04
ARDIN H. MARSCHEL
PRIMARY EXAMINER